



The Lab Notebook

Upcoming Exhibits Will Focus on the Origins of Recorded Sound



A new exhibit is coming soon to Building 5 that highlights the work of Thomas Edison's predecessors in the effort to record sound. The exhibit, accompanied by a detailed web presentation, will explore the work of two French scientists who were pioneers in the field of acoustics.

In 1857 Edouard-Léon Scott de Martinville invented what he called the phonautograph, a device that traced an image of speech on a glass coated with lampblack, producing a phonautogram. He later changed the recording apparatus to a rotating cylinder and joined with instrument makers to commercialize the device.

A second Frenchman, Charles Cros, drew inspiration from the telephone and its pair of diaphragms—one that received the speaker's voice and the second that reconstituted it for the listener. Cros suggested a means of driving a second diaphragm from the tracings of a phonautogram, thereby reproducing previously-recorded sound waves. In other words, he conceived of playing back recorded sound. His device was called a paléophone, although he never built one. Despite that, today the French celebrate Cros as the inventor of sound reproduction.

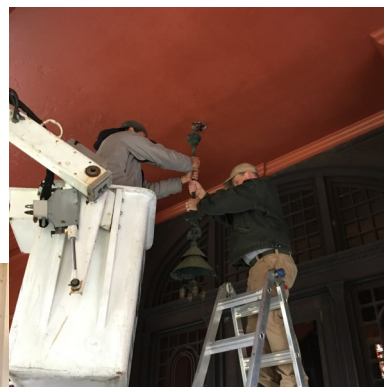
Three replicas that will be on display. From left: Scott's phonautograph, an Edison disc phonograph, and Edison's 1877 phonograph.



Conservation Continues at the Park



The Renova/PARS Environmental Group surveys the chemicals in Edison's desk and in several drawers.



Workers remove the light fixture outside the front door of the Glenmont home. They'll take it to the conservation studio of HACE (Historic Architecture, Conservation, and Engineering) Center in Lowell, Massachusetts.

The Brougham returned to the Glenmont Garage on March 23 after an extended visit to the conservation firm BR Howard & Associates. Treatment included overall cleaning of the exterior and the interior, consolidation of flaking paint, stabilization of corrosion, and new tires.



Conservators use a tacking iron to smooth wrinkles on the canvas-covered ceiling in Madeleine's bedroom.



A conservator examines the wall finish in Madeleine's bedroom.

Message from the Superintendent

The return of spring brings warmer and longer days, blossoming flowers and buds on shrubs and trees, and increased visitation; all a welcome prelude to our typical busy summer season. Coming off our successful Centennial Celebration, we will continue to inspire the American people to visit National Parks through the unique “Find Your Park” campaign which brought record crowds to Parks across the nation last year, including the highest visitation to the Thomas Edison NHP since its re-opening in 2009.

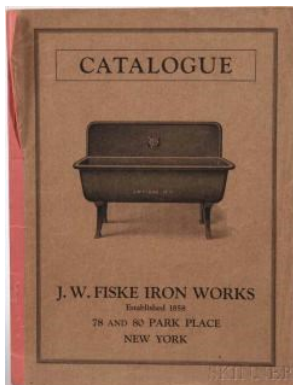
As we work to continue to attract new audiences and strong visitation, we are busy on a number of conservation and preservation projects across the park. In fact, this spring, and into the summer, some of the most significant conservation and rehabilitation work we have seen in years will be taking place at the Glenmont mansion, both inside and outside the building, including roof work and driveway and path rehabilitation. I foresee our next edition of *The Lab Notebook* chronicling these projects.

In the meantime we have a great number of events and special programs occurring this spring, including what could be billed as a world première exhibit focusing on Edouard-Léon Scott de Martinville and his 1857 phonograph, which is now recognized as the first device to record sound. So I invite you to come out and participate in a program or just spend a day in the park; chances are that you will experience, learn, or see something new.

Sincerely,
Tom Ross

GLENMONT GARDEN PLANTERS REVEAL INTERESTING HISTORY

Long before the conservators don their white gloves for any project at the Park, the first step is historic research. Understanding the background of an artifact as well as its construction enables a conservator to better understand what that object looked like when it first graced the showroom floor or the pages of the latest sales catalogue. The Edwardian garden planters, recently conserved on the Glenmont grounds, were no exceptions. Preliminary research revealed the manufacturer of these detailed pieces to be the J. W. Fiske & Company Ornamental Iron Works of New York City, whose catalogue boasted that its statuary depicted everything from deer and dogs to lions. The company was established in 1858 and it soon diversified, offering not only garden statuary and lawn ornaments but also war memorials, weathervanes, and hand mowers. Having established a reputation for its cast zinc and cast iron objects, the firm soon became one of the most prolific manufacturers of these decorative items in the country.

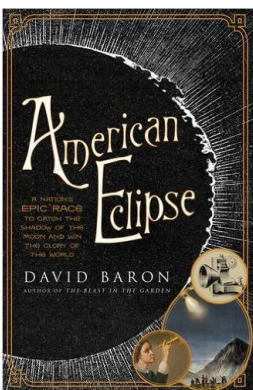


The company offered customers great flexibility in designing the finished product. Fiske offered several bases, urns, and handles for its planters so the client could choose from a selection of components that could be mixed and matched. For example, Mina Edison chose dragon handles for her garden planters, but others might select stag heads or classical scroll handles. These Gilded Age artifacts reflected the opulence of their era and were adapted to a variety of uses. Many were used as planters, to be sure, while others were turned into bases for elaborate fountains and others were covered with glass domes and used as aquariums. Our planters at Glenmont, still in their original locations are still in use today, cared for by the Rutgers Master Gardeners of Essex County, who volunteer their time to care for the many flower beds and plantings around the estate. When the weather gets warmer, be sure to check out the finished product and see if you approve of Mina's design choices.



Conservator Lauren Paige-Isaacs treats one of the Glenmont planters.

What's this? The staff of the Renova/PARS Environmental Group found the lid of a Hellmann's mayonnaise jar in the Chemistry Lab. Were the Edison chemists so devoted they worked through the lunch hour?



Save the Date: June 11

David Baron, an award-winning journalist and former science reporter for NPR, will be here at the Park on Sunday, June 11, to discuss his new book *American Eclipse: A Nation's Epic Race to Catch the Shadow of the Moon and Win the Glory of the World*. The book explores the intense competition between Thomas Edison and his rivals to observe—and profit from—the solar eclipse of

1878 at a site in Rawlins, Wyoming. It's a tale of the vanishing Wild West: train robberies, Indian skirmishes, and astronomy.

Edison, second from right, on his 1878 expedition.



Another Edison Myth Is Stamped Out

Apocryphal stories still surround Thomas Edison; his deafness, for example, had long been ascribed to his being pulled up by the ears into a railroad car. The *Hindustan Times* of Beijing recently reported the demise of one more legend. A textbook for second grade students throughout China—in print for three decades—stated that the seven-year-old Edison helped save his mother's life during an appendectomy by using mirrors to reflect light from candles, thereby giving the doctor enough light to perform the operation.



Chinese students in class. A story about Edison in their textbooks worried parents and teachers.

Wrong. The paper cites an article on the Columbia University web site which points out that surgery for appendicitis didn't become commonplace until the 1880s, long after Edison's youth. Chinese schoolteachers doubted the accuracy of the story and worried that students could see it as license to lie if it is perceived as false. The controversy became the subject of much discussion on Weibo, China's Twitter. Many parents recalled studying stories during the Cultural Revolution which later turned out to be untrue.

The report said People's Education Press responded to the controversy by announcing on March 21 that "the story will not be included its new textbook for the coming autumn semester".

Where did the textbook writers get this story? One source could certainly be the American film *Young Tom Edison*, produced by M-G-M in 1940, which dramatized the incident, lending it a touch of authenticity.



Young Tom Edison (Mickey Rooney) explains his plan to Dr. Pender (Lloyd Corrigan) as he starts filling the dining room sideboard with oil lamps that will provide ample light (reflected by the mirror) for his mother's surgery. The story is completely untrue, but makes for a thrilling moment in the film and has been taught to Chinese schoolchildren for years as an example of innovative thinking.

Library of Congress Adds Early Edison Cylinders to National Recording Registry

On March 29 the Library of Congress announced the addition of 25 more recordings to the National Recording Registry, including a collection of 39 Edison recordings made in London by Colonel George Gouraud, Edison's agent in Britain in 1888. Each year, the Librarian of Congress picks 25 titles that are "culturally, historically or aesthetically significant" and at least 10 years old. These additions bring the total number of titles in the Registry to 475.

The first "perfected" phonograph to leave Edison's factory in 1888 went to Colonel Gouraud, a Civil War hero living in London. An expert promoter, Gouraud hosted recording demonstrations with celebrity guests such as William Gladstone, Sir Arthur Sullivan, Alfred, Lord Tennyson, and Florence Nightingale, all of whom made some of the recordings. The first recording was made on June 29 at the Handel Festival held at the Crystal Palace in suburban southeast London. Hugh DeCoursey Hamilton, who worked for Gouraud and Edison, captured a 4,000-voice chorus performing an excerpt from *Israel in Egypt* from the press balcony 100 yards from the stage.

Among the other recordings selected this year are: Judy Garland singing "Over the Rainbow," the original recording of "Hound Dog," sung by Big Mama Thornton, Barbra Streisand's "People," Wilson Pickett's "In the Midnight Hour," and "American Pie," by Don McLean.



The Illustrated London News, July 14, 1888. The cover engraving shows the Edison phonograph in the press gallery at the Crystal Palace, recording music from *Israel in Egypt*.



Col. Gouraud recording a message for Edison at his home in London, "Little Menlo."



National Park Service
U.S. Department of the Interior

Thomas Edison National Historical Park
211 Main Street
West Orange, NJ 07052

Thomas Edison National Historical Park was established to preserve and protect Thomas Alva Edison's West Orange Laboratory, home, and collections for the education and inspiration of people worldwide.

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The National Park Service cares for the special places saved by the American people so that all may experience our heritage.

National Park Service
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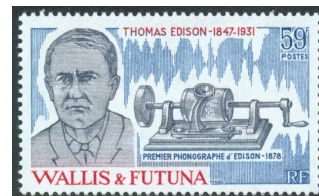
The Lab Notebook is a quarterly publication of Thomas Edison National Historical Park.

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Happy St. Patrick's Day!



The 2017 contingent from the Park steps off at the foot of Mt. Pleasant Avenue on a chilly Sunday.

Chugging along Main Street. Ricky Suarez of the Maintenance staff is at the wheel of the Model T alongside Les Williams (the volunteer with the highest number of hours in the past year). Fellow volunteer (and Chair of the Friends of TENHP) Arthur Gordon, is in the back seat.

